

Multi-Jurisdiction Laboratory Fraud Investigations

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ABSTRACT

The National Enforcement Investigations Center (NEIC) of the U.S. Environmental Protection Agency's (U.S. EPA) Office of Enforcement and Compliance Assurance (OECA) conducts civil and criminal environmental investigations in partnership with other federal, state, and local law enforcement agencies. NEIC employs a unique and innovative approach in these investigations that ensures regulatory and statutory requirements are met. NEIC's multidisciplinary approach involves merging analytical chemistry, environmental science, engineering, and electronic data analysis with civil and criminal law enforcement.

This poster addresses NEIC's experience, specifically in laboratory fraud investigations. Laboratory fraud investigations target the accuracy and truthfulness of reporting environmental data. Data integrity is a cornerstone for environmental compliance and enforcement and is essential to the protection of public health and the environment.

NEIC's multidisciplinary approach in federal, state, and local environmental investigations has been successfully applied across the country on criminal and civil data laboratory fraud investigations involving:

- Plastics industries
- Petroleum industries
- Petrochemical industries
- Environmental recycling operations
- Analytical laboratories mentioning industry

LABORATORY FRAUD INVESTIGATIONS

Recently, NEIC has been using an innovative approach in these investigations by merging electronic data analysis techniques with analytical chemistry. NEIC scientists and engineers have investigated laboratory fraud and false reporting at laboratories that use Laboratory Information Management Systems (LIMS).

In Laboratory fraud investigations, NEIC's Electronic Data Analysts (EDA) electronically image LIMS systems using electronic data seizure and recovery techniques. The LIMS systems and laboratory instruments are recreated in NEIC Electronic Data Analysis Laboratory (EDAL).

By combining the skills of expert chemists and engineers in specific environmental disciplines, with computer personnel specifically crossed trained in related applications, NEIC has provided critical support on a number of successful, complex cases.



Electronic data analysis has been used to examine laboratory computer information management systems, which are used to track samples, times, analysts, data reduction and quality control information essential to laboratory recordkeeping and sample reporting. Information has been obtained which showed patterns of fraud including:

- Changing dates and times of sampling and analysis.
- Computer algorithms which generate false data.
- Other electronic manipulations.

Seized data files have been "played back" on bench systems set up at the EDAL in Denver to indicate patterns of fraud.

On-site computer and instrumentation at a facility may be "transient." In several recent cases magistrates have allowed government investigators to operate company owned equipment to demonstrate an artifice of fraud. In other cases, electronic data downloaded from systems has been "deployed" on systems procured and assembled at the EDAL in Denver.



CRIMINAL INVESTIGATION OF KEYSOR CENTURY CORPORATION:

The federal search warrant involved more than 80 agents, investigators, inspectors, and other regulatory personnel. The federal, state, and local agencies included EPA-NEIC, EPA-CID, EPA-Superfund, FBI, South Coast Air Quality Management District (SCAQMD), Public Works, California Department of Toxic Substances Control (DTSC), Los Angeles City Haz Mat, and LA Sanitation District. A criminal search warrant resulted in seizing documents, computer imaging, employee interviews, regulatory inspection, and in-depth investigation of their computerized Continuous Emissions Monitoring System / Environmental Laboratory. Discoveries include a dump site containing friable asbestos, laboratory falsification, and incriminating e-mails. The prosecution was able to prove the company's conduct was willful, knowing, and intentional, and proved endangerment of human health and environment.

Federal & SCAQMD Regulations Violated

STATE OF CALIFORNIA

- AQMD Rule 1163 -- Control of Vinyl Chloride Emissions
- AQMD Rule 1173 -- Control of VOC Leaks & Releases
- AQMD Rule 1403 -- Asbestos Emissions from Demolition/ Renovation Projects
- AQMD Regulation XX -- RECLAIM Requirements

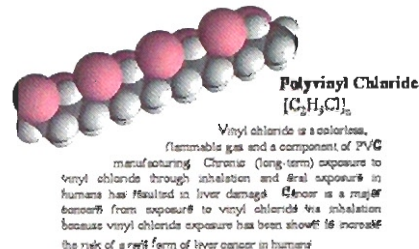
FEDERAL

- 40 CFR, Part 61, Subpart F -- National Emission Standard for Vinyl Chloride
- 40 CFR, Part 61, Subpart M -- National Emission Standard for Asbestos
- Misc. Recordkeeping and Permit Condition Requirements

CASE EXAMPLE: SUCCESSFUL LAB FRAUD INVESTIGATION

KEYSOR CENTURY CORPORATION - SAUGUS, CA

- Long time leader in the manufacture of long playing record albums
- Branched out to produce:
 - Resins used in floor tiles
 - Credit Cards
 - Molded plastic bottles
- Manufacturing process emits vinyl chloride



ALLEGATIONS - KEYSOR CENTURY CORPORATION

- Falsified:
 - Federal and State Emissions' Monitoring Reports
 - Reactor opening loss data
 - Vinyl chloride water exposure records
- Un-reported excess emissions releases and breakdowns
- Illegal dumping into city and county storm drain systems
- Acetaldehyde by-product disposal
- Automated Falsification
 - High values identified
 - Random number generated
 - Original data overwritten



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